#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

## WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-029738 Address: 333 Burma Road **Date Inspected:** 22-Jun-2013

City: Oakland, CA 94607

**Project Name:** SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

**CWI Name:** Bernie Docena **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No

Yes **Delayed / Cancelled: Bridge No:** 34-0006 **Component: SAS** Tower

### **Summary of Items Observed:**

Caltrans Quality Assurance Inspector (QA) Joe Adame was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

#### Tower Electroslag Welds:

The QA Inspector was present to perform Ultrasonic Testing (UT) inspection verification on Electroslag (ESW) welds on the interior of the Tower. The purpose of the UT inspection was for the detection of planar indications utilizing both the "pulse echo" (PE) technique and the "pitch and catch" (PC) technique for further discontinuity evaluation on ESW welds. The data collected from utilizing the P/C technique is for information only. On this date QA was informed by ABF QC Representative Chris Chew that QC Inspector Jesse Cayabyab is ill and will not be in today. Mr. Chew respectfully requested if QA could continue with UT P/C on ESW welds and will ABF will assist in anyway possible. The QA Inspector performed UTSW Pitch/Catch on the following:

ESW N-043 Location "P" (Face B) 80/100mm Thick, 70° Angle (Results below):

Y: 1560mm, X: -15

-PEUT: Ind. Lvl (A): 67, Ref. Lvl (B): 51, Att. Factor(C):6, Ind. Rating (D): 10, SD (E): 89 -PCUT: Ind. Lvl (A): 76, Ref. Lvl (B): 51, Att. Factor(C): 16, Ind. Rating (D): 9, SPa (E):260

Y: 1945mm, X: -5

-PEUT: Ind. Lvl (A): 68, Ref. Lvl (B): 51, Att. Factor(C):10, Ind. Rating (D): 7, SD (E): 148 -PCUT: Ind. Lvl (A): 71, Ref. Lvl (B): 51, Att. Factor(C): 16, Ind. Rating (D): 4, SPa (E):138 N/A

No

# WELDING INSPECTION REPORT

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Y: 2240mm, X: -5			
-PEUT: Ind. Lvl (A): 64, Ref. Lvl (B): 51,	Att. Factor(C): 4,	Ind. Rating (D): 9,	SD (E): 72
-PCUT: Ind. Lvl (A): 84, Ref. Lvl (B): 51,	Att. Factor(C): 16,	Ind. Rating (D): 17,	SPa (E):290
Y: 2675mm, X: -15			
-PEUT: Ind. Lvl (A): 63, Ref. Lvl (B): 51,	Att. Factor(C): 4,	Ind. Rating (D): 8,	SD (E): 75
-PCUT: Ind. Lvl (A): 73, Ref. Lvl (B): 51,	Att. Factor(C): 16,	Ind. Rating (D): 6,	SPa (E):285
Y: 3130mm, X: 0			
-PEUT: Ind. Lvl (A): 68, Ref. Lvl (B): 51,	Att. Factor(C):8,	Ind. Rating (D): 10,	SD (E): 102
-PCUT: Ind. Lvl (A): 71, Ref. Lvl (B): 51,	Att. Factor(C): 17,	Ind. Rating (D): 3,	SPa (E):210

ESW pitch & catch UT was performed per ABF Sup. Procedure 3 UT of ESW Groove Welds Pitch- Catch. The tandem UT report for work performed on this date will be completed once QC Inspector Jesse Cayabyab has also inspected the locations and information is in agreement with QA. Final UT report will be signed by both QA/QC parties to be presented to ABF & CT METS for further review.

## **Summary of Conversations:**

Only general conversations with ABF/JV QC NDT personnel relevant to work and testing performed during this shift.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Adame,Joe	Quality Assurance Inspector
Reviewed By:	Mertz,Robert	QA Reviewer